

**Assessment of  
Post Demining Impact Assessment for the  
Mine Action Coordination Center of Afghanistan**

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## List of Abbreviations

ALIS	Afghanistan Landmine Impact Survey
AMAC	Area Mine Action Center
AMAS	Afghanistan Mine Action Standards
ARCS	Afghan Red Crescent Society
AREU	Afghanistan Research and Evaluation Unit
CDC	Community Development Council
DFID	Department for International Development
DMC	Department of Mine Clearance
ERW	Explosive Remnant of War
HMA	Humanitarian Mine Action
ICRC	International Committee of the Red Cross
IMSMA	Information Management System for Mine Action
LIAT	Landmine Impact Assessment Team
LIS	Landmine Impact Survey
MACA	Mine Action Center Afghanistan
MACCA	Mine Action Coordination Center of Afghanistan
MAPA	Mine Action Programme for Afghanistan
MRE	Mine Risk Education
NRVA	National Risk and Vulnerability Assessment
NSP	National Solidarity Programme
PDIA	Post Demining Impact Assessment
SAC	Survey Action Center
SHA	Hazard
UNDSS	United Nations Department of Safety and Security
UNFPA	United Nations Fund for Population
UNMACA	United Nations Mine Action Centre Afghanistan
UXO	Unexploded Ordnance
VA	Victim Assistance
WHO	World Health Organisation

## Executive Summary

Afghanistan remains one of the most landmine and Unexploded Ordnance (UXO) contaminated countries in the world. In 2005 it was estimated by the Afghanistan Landmine Impact Survey (ALIS) that 8% of the communities of Afghanistan was impacted by mines and 15% of the population, were living in mine-impacted communities. The human cost of landmines has been high and enduring. Ongoing conflict, extreme poverty, a lack of infrastructure, and low economic development continue to hamper access to services for the entire population, particularly for the most vulnerable groups. A reduction in the number of mine victims is therefore an urgent priority. Afghanistan also has the world's longest established and biggest mine action program, with mine action being one of the more successful sectors in Afghanistan relative to other areas of intervention. The 2009 clearance strategy for Afghanistan is focused on achieving Afghanistan Compact and Afghanistan National Development Strategy benchmarks, one of which states that by March 2011, the land area contaminated by mines and UXO will be reduced by 70%.

Impact assessment is a key activity informing many aspects of the demining process; the ability to assess the impact of humanitarian interventions is critical both for priority-setting and for maximizing the quality of projects. This brief study, in examining Post Demining Impact Assessment (PDIA), reflects how much the shift in strategic focus from minefield to community and from hazard/contamination to socioeconomic impact on human populations has taken place in the Afghan context. The aim of this consultancy is to examine the ability of current impact assessment tools to capture broader impact issues rather than narrowly defined outputs (e.g. number of mines and UXO lifted or number of square metres cleared) and how impact information affects planning and priority setting if at all. The consultancy took place between January and February 2009. Six communities were visited; two were at the pre-demining phase while four were at post-demining phase. The reason for this is that although the impact of most projects is best measured after the project has been implemented demining is unusual in that communities are much more aware of the direct impact of mines before they are cleared.

In May 2007, after training Landmine Impact Assessment Teams (LIATs) for the job, Mine Action Center Afghanistan (MACA) started to conduct PDIA. LIATs perform their duties conscientiously and are generally more comfortable with the figures and calculations involved in economic analysis related to demining rather than the slightly more nebulous aspects related to the 'people'-end of activities and social impact assessment. Foremost among the latter would be the relatively unexplored aspects of how mines affect the intimate relations between people and the landscape in predominantly rural or agrarian communities. According to the LIATs basic comparison between forms exploring the pre- and post-demining phases in a community does not take place which means that impact assessment is based on combination of quantitative outputs and assumptions on how these potentially affect communities for the better. There was an overall impression that collecting the information was fundamentally about completing steps in a linear process rather than loops feeding information and analysis back into a learning environment. Information collection processes appear to be mechanical, somewhat hierarchical and not geared towards organisational learning. There was no sense of a participatory process when interacting with communities although all staff were respectful.

It is critical that impact assessment activities lead to better planning where the right tasks are addressed first, ensuring that scarce resources for Humanitarian Mine Action (HMA) are utilised in the best

possible manner. Currently information collection is not leading to adaptability where individual operations are tailored to the conditions of communities hosting them or adapting to changing circumstances in the course of a project. Information is collected to justify what has been done and even that is not performed correctly. PDIA is currently similar to confirmation assessment and determines whether humanitarian demining operations have achieved their objective of minimising or eliminating the impact of mines and Explosive Remnants of War (ERW) on affected communities. Additionally, there is a need to assess the accuracy of the information upon which decisions for priorities for demining were made. There is no clear analytical framework for the information collected using the existing forms beyond extraction of basic quantitative information for the PDIA data at present. The PDIA is currently a cross between an impact assessment, quality control and customer satisfaction form. It performs each task imperfectly. The information collection is also a hybrid between double-checking the LIS data together with a one-off micro-level economic cost-benefit analysis. It was clear that the competence built and data generated by impact assessment remain poorly integrated at different levels and probably within most Afghan organisations working on demining. Currently, information is not collected rigorously from a quantitative or qualitative point of view.

Overall, interview categories in the PDIA and forms related to the process reflect a bias towards those in the military, those with authority and other categories of the 'learned' rather than those who may have a different but long-term and direct experience of the presence and impact of mines. In terms of gender, one of the most important considerations is that data collection focuses on community males simply due to lack of female staff. The argument that women stay at home certainly cannot be used to avoid interacting with women in a number of rural contexts. Discussions with staff showed a substantial resistance to gender equality and equity and very conservative attitudes. It would seem that movements of the small number of female staff in the demining sector are very limited and they are only allowed to go to areas deemed 'safe' and 'appropriate' by male staff. In fact it would seem that much of the discussions and changes which have taken place in relation to gender relations in the Afghan workplace have passed the demining sector by.

Current PDIA fails to highlight situations where original prioritization was erroneous because land was used differently later, benefitted less people or was not put into productive use immediately. In reality, it is unclear how PDIA reports are used to justify priority setting, if at all. Mine Action Programme for Afghanistan (MAPA) guidelines state that priority should be given to clearance of land that will immediately be put back into productive use once it is free of mines but in spite of credible community commitments based on consultation this does not always happen. Theoretically, after mine-clearance, PDIA is supposed to check, using the information collected, to decide whether the assumptions formed to prioritize clearance, and by extension to make spending decisions, were correct. This check does not take place as the assumptions as to what the likely impact of clearing land are never explicitly stated and written out on a case by case basis. The current prioritisation/justification system is based on assumptions of a static operating context. Forms are designed to prove economic benefit based on infallible assumptions but reality asks staff to perform a comparison and supply information which could improve prioritisation. There is no feedback loop in the system which allows the PDIA information to address the validity of prioritisation except in relation to technical issues, most specifically depth at which mines were cleared.

One cannot escape the simple fact that impact can only really be secured once implementers and operators on the ground develop the requisite capacity to actually want to use it and to know how to use it. All actors in HMA should be held accountable for their ability and willingness to base interventions on solid assessments of impact. The search for simple and unambiguous representations

of impact is for the most part a futile exercise and donors and similar stakeholders should take note of this. Based on observations and interviews during this consultancy period impact assessment still appears to be conceptualised as a discrete event with a single function rather than an integral part of the project cycle from beginning to end. Bringing impact assessment into regular use, together with a continuing shift from narrow output measures to a broader understanding of impact, can be seen as an expansion of existing routines, rather than a break with established procedures.

The mine action sector has a strong tradition of internal planning and monitoring systems and should be able to institutionalize regular impact assessment with ease. There is no need to set up a large semi-independent impact assessment unit or to develop an “insulated specialization” among a select few but to develop the capacity of existing staff to strengthen ongoing monitoring processes. Further work is needed on enhancing the quality of impact assessment and the understanding of staff about the type of information which would help them improve priority-setting and maximize project quality beyond a focus on technical aspects and for normalizing a more people-centered approach in demining. No single approach will provide all the answers to the need for impact assessment in the demining sector. There is plenty of room to experiment with the methodological tools and analytical frameworks in existing approaches and drawing on experience as it accumulates. When money is short, it certainly makes sense to collaborate with others collecting information which would be of relevance when assessing the impact of demining. One issue is certainly to ensure transparent reporting which allows relevant stakeholders to participate in well informed discussions on how and where scarce mine action resources could be best utilized.

To sum up, presently impact assessment is not being used to challenge organisational learning and to modify procedures, strategies and policies – except in relation to technical issues. Information collection, analysis and use are still very much top-down processes in Afghanistan’s demining sector. They are focused on satisfying donors and headquarters, that targets have been reached and money has been well-spent, rather than checking that operations are on the right track. This not only relates to a misunderstanding of impact assessment but also to an organisational culture which perpetuates this state of affairs. The challenge is not only to refine and develop impact assessment tools but also to ensure that they are thoroughly integrated in decision-making and project implementation by as many stakeholders as possible. Information generated must be used to improve communication both within and between those directly involved in mine action together with all other relevant stakeholders.

## List of Recommendations

- Considering the difference in responses from stakeholders before, during and after the removal of mines, with demining there is a need to assess impact throughout the project cycle rather than at a specific end-point.
- Impact assessment processes should involve a constant stream of information and analysis and the process should be integrated throughout the project sequence rather than an isolated, one-off event.
- In mine-action programme management, priority setting is the most critical process and impact assessment must constantly feed into it by providing information which allows stakeholders to periodically review results and reassess the assumptions and decisions made at from start.
- LIATs and others need a better understanding of broader impact issues among all relevant stakeholders, as opposed to the narrow output definitions they work with.
- All those involved in information collection need to understand clearly why they are collecting information and for whom. Information collection should also involve clear indications of whom information will be shared with on different levels from communities to governments and donors.
- The competence built and data generated by impact assessment should be better integrated at different levels and probably within most Afghan organisations working on demining.
- Since impact assessment should both ‘prove’ and ‘improve’ quantitative and qualitative approaches can be used at different points in operations to provide relevant information but methodologies must be applied rigorously. The choice of methods used should depend on the issues at hand, the stage at which assessment takes place and the scale of operations.
- In some cases, it may be advisable and desirable to ‘piggy back’ on the information collection processes of others (e.g. the National Risk and Vulnerability Assessment) where mine-related impact information is being collected.
- Impact assessment methods should look beyond specific ‘traditional’ categories of informants to provide a better understanding of how different socioeconomic groupings interact with mined areas. The interview group should reflect different levels of interaction with the minefield.
- Demining raises expectations and for operations to have the desired impact there must be strong coordination with other development actors so that sequencing of complementary activities is well-timed to avoid situations where landmines are cleared but no follow up activity takes place and land cleared remains unused.
- It is clear from this study that the community studies approach in the Afghan context may highlight a multiplicity of other factors affecting a community when landmines are present. Community studies can be used at all phases of a project but in larger operations their usefulness would be to make a thorough impact assessment of communities prioritized using

other methods. Collecting diverse but relevant categories information may help improve prioritisation, planning and impact assessment of demining activities.

- There may be a need to collect more nuanced information on the conditions, attitudes and beliefs which can lead to increased and conscious risk taking behavior in communities living in close proximity to minefields.
- There is very little information related to the impact of landmines on the poorer sectors of the community. Qualitative research on the issue may indicate that various combinations of low income, limited employment opportunities and a large number of dependents may lead to risk taking behaviour.
- Another area which can be explored more thoroughly is the dynamic between land ownership, land conflicts, land grabbing and demining. Land conflict can lead to disuse or negative impact on a community after demining, cancelling the benefits of clearance efforts. This also pertains to access to and use of irrigation water as well as other cases where access to economic or productive assets is blocked by mines and contested.
- The impact of mines on the usage of secondary and tertiary roads as well as major routes where animals are used for transportation or people go on foot may also be of interest. A mapping of relative mobility between different sexes, age groups and socioeconomic categories in various contexts will determine whether the 500m proximity as an estimate of a serious hazard is valid for all age groups and for both sexes.

## Introduction

Afghanistan remains one of the most landmine and Unexploded Ordnance (UXO) contaminated countries in the world. In 2005 it was estimated by the Afghanistan Landmine Impact Survey (ALIS) that 8% of the communities of Afghanistan was impacted by mines, that 2,245 people were killed or injured by mines between the years 2002 and 2004 and that an estimated 4.2 million people, or 15% of the population, were living in mine-impacted communities. Not surprisingly, Afghanistan also has the world's longest established and biggest mine action program, with mine action being one of the more successful sectors in Afghanistan relative to other areas of intervention<sup>1</sup>. 455 victims of landmines and Explosive Remnants of War (ERW) have been recorded in January through July 2008, the vast majority being male and almost 50% being children, but the number of victims is declining yearly, a testimony to the success of mine clearance and Mine Risk Education (MRE)<sup>2</sup>. Landmines and ERW pose a formidable challenge to social and economic reconstruction critical to the country's political stabilization, with contamination particularly concentrated in central and key food-producing eastern provinces, affecting towns and urban commercial areas as well as villages, farm and grazing land, and roads.<sup>3</sup>

The human cost of landmines has been high and enduring. The National Disability Survey in Afghanistan estimated between 747,500 and 867,100 persons with disabilities in Afghanistan, including some 52,000 to 60,000 mine/ERW survivors. Social stigma and high general unemployment (60%) severely limit the economic opportunities of persons with disabilities; 97% of women and 53% of men with disabilities are unemployed. Disabled women are especially affected by prejudices and segregation preventing their social reintegration as often they are not allowed by their families to study, find a job, or start a business<sup>4</sup>. Pending legislation includes a quota foreseeing 3% of jobs and 20% of vocational training for persons with disabilities<sup>5</sup> but Afghanistan lacks or has low quality services in all areas of victim assistance (VA)<sup>6</sup>. Ongoing conflict, extreme poverty, a lack of infrastructure, and low economic development continue to hamper access to services for the entire population, particularly for the most vulnerable groups. While demining agencies do not deal with assistance to victims of mines, a reduction in the number of mine victims is an urgent priority for them.

The 2009 clearance strategy for Afghanistan is focused on achieving Afghanistan Compact and Afghanistan National Development Strategy benchmarks, one of which states that by March 2011, the land area contaminated by mines and UXO will be reduced by 70%. Currently the Afghanistan government's Department of Mine Clearance (DMC) is the focal point for mine action on a strategic level, developing strategy and policy guidance. The Mine Action Coordination Center of Afghanistan (MACCA) handles coordination and management, seven Area Mine Action Centers (AMACs) handle coordination and management at area level and 21 mine action organizations are in charge of implementation. Within the MACCA the operations department is in responsible for the Mine Action Program for Afghanistan (MAPA) coordination, quality management, planning and prioritization, tasking and resource allocation, Landmine Impact Survey (LIS), surveillance, Post-Demining Impact Assessment (PDIA), community liaison, and for facilitating the development of national mine action standards.

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<sup>1</sup> Todd & Davies 2008

<sup>2</sup> MAPA 2008

<sup>3</sup> Landmine Monitor Report 2008

<sup>4</sup> Afghanistan Landmine Impact Survey (ALIS) 2005

<sup>5</sup> ALIS 2005

<sup>6</sup> Landmine Monitor Report 2008

Impact assessment is a key activity informing many aspects of the demining process; the ability to assess the impact of humanitarian interventions is critical both for priority-setting and for maximizing the quality of projects<sup>7</sup>. The demining sector has traditionally had, “a strong focus on technical performance, which by many observers is seen to be related to a predominance of military personnel in management and advisory positions”<sup>8</sup>. Although there has been a shift away from this since 2006 the technical and military focus still affects interaction with communities, information collection and impact assessment processes. Inadequate steps to address the challenge of rooting activities in solid impact assessment of socioeconomic impact may hamper efforts to integrate mine action within the broader field of postwar reconstruction and development. This brief study, in examining PDIA, reflects how much the shift in strategic focus from minefield to community and from hazard/contamination to socioeconomic impact<sup>9</sup> on human populations has taken place in the Afghan context. The aim of this consultancy is to examine the ability of current impact assessment tools to capture broader impact issues rather than narrowly defined outputs (e.g. number of mines and UXO lifted or number of square metres cleared) and how impact information affects planning and priority setting if at all.

## Methodology

Within the constraints of the study, the consultant, following Harpviken et al.’s lead, decided to examine how the current PDIA functions, by examining the integration of three of the more mainstream impact assessment approaches, namely (a) the Landmine Impact Survey, (b) economic analysis, and (c) community studies. The consultant’s main aim was to explore whether the current methodology covered impact (social, economic, psychological, personal, communal, etc.) rather than output and to determine how this affects priority setting and planning. The consultancy took place between January and February 2009.

Three main methods have been used in this study over a period of three weeks: (a) semi-structured interview, based on loose checklists, with a range of interviewees, primarily in mine-affected communities, (b) personal observation/interaction and (c) study of available and relevant documentation. Interviews were conducted in local languages without need for interpretation. Interviews took place in villages in a local house. One interview was conducted in the open near the mined area. The provinces visited were Kabul, Parwan, and Baghlan, the three most heavily impacted provinces<sup>10</sup>. Staff from the operations/planning departments were also interviewed and/or provided information during initial briefings. The first visit to a mine affected community included MACCA staff, one Landmine Impact Assessment Team (LIAT) team and one member of the DMC. Subsequent interviews involved one member of the MACCA, one LIAT team and one member of the Kabul AMAC. In one community staff were excluded completely providing a very informal and candid setting for discussions with community members.

Location of communities visited was determined by the Kabul AMAC based on basic criteria provided by the consultant mostly dependent on whether activities were at a pre- or post-demining phase and also based on security constraints. Six communities were visited; two were at the pre-demining phase while

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<sup>7</sup> Harpviken et al. 2003

<sup>8</sup> Harpviken et al. 2003

<sup>9</sup> Downs 2006

<sup>10</sup> “The reasons for the clustering of impact as well as some exceptionally high-impact communities can be traced to the conflict with the Soviet Union between 1979 and 1989 and the internal struggles, especially around Kabul and the Shamali Plain north of Kabul, between various factions, warlords, and the Taliban regime.” (ALIS 2005)

four were at post-demining phase, some immediately after demining or in situations where not all minefields in the vicinity had been cleared and others at an interval of six months after demining. Interviewees were selected on the basis of availability and interest in engaging with the consultant. Details are given in Table 1 below:

**Table 1: Details of Interviews**

Village Name	Total Number of Interviewees	Age Group	Women Interviewed	Type of settlement
Shahrak-e Aleskan	10	Mixed	0	Returnees – new settlement
Koh-i Mohmand	17	Mixed	0	Non-returnees – established settlement
Biri Warsak	14	Mixed	6	Returnees – new settlement
Jaffarkhel	6	Mixed		Returnees and non-returnees – established settlement
Daneshmand	4	Elders	0	Established settlement
Bakhsikhel	6	Mixed	0	Mixture of old and new houses

Discussions with communities were undertaken partly in order to explore topics which may have been missed while using of standard formats. The approach involved briefly examining a variety of the effects of landmines such as those over time, in specific contexts and on different populations. After an initial visit to a newly established returnee village, for example, the consultant decided to ensure that communities visited should include established villages. This was to ascertain whether a long term relationship with the land and the actual presence of mines affected the way in which communities described impact. It was also decided that the sample should include communities where demining was still taking place or had recently been completed. Although six villages were visited only five case studies are presented. The visit to the first village did not produce sufficient case study material but led to changes in village sampling. Priorities for mine action will vary considerably according to situation and context e.g. emergency versus development, national versus local priorities. This report focuses on local priorities and a developmental context and provides an overview of issues encountered while interviewing communities, AMAC and MACCA staff.

## Assessing Impact

### Why Assess Impact?

Impact assessment may focus more on satisfying donors and similar stakeholders rather than altering practices and improving prioritization, “proving” and perceived productivity rather than “improving” and positive impact<sup>11</sup>. It is often perceived as an external imposition. With decreasing resources for mine action, however, it is critical to have access to information which ensures that the right tasks are addressed first and that scarce resources are utilized efficiently. Also, individual operations may have to

<sup>11</sup> Harpviken et al. 2003

be tailored to conditions of host communities or to adapt to changing circumstances in the course of a project. There is also “the challenge of organizational learning, of using assessments of impact to modify procedures, strategies and policies”<sup>12</sup>. This requires a constant stream of information and analysis, a process of impact-assessment integrated throughout the project sequence rather than an isolated, one-off event.

In mine-action programme management, priority setting is the most critical process and impact assessment must feed into it. Priority setting approaches should support the goals of the respective programme, including direct mine-action goals (rapid reduction of new victims, elimination of all landmines and effects of landmines) and support to local and national development (support to local economic development, support to regional road or electrical system rehabilitation)<sup>13</sup>. Impact assessment must constantly feed into priority setting processes, periodically reviewing results and reassessing the assumptions and decisions made.

### When to Assess Impact?

Harpviken et al. state that “attention to impact assessment in HMA is primarily aimed at developing a tool for planning and prioritisation before implementation, with little attention being paid to the implementation and completion phases” but there are a number of other issues to consider as well. Although the impact of most projects is best measured after the project has been implemented demining is unusual in that communities are much more aware of the direct impact of mines before they are cleared. It is difficult to ask interviewees about the impact of mines six months after they have been removed as they are already focusing on pressing problems in the present time. Pre- and immediately post-impact communities were much more emotive in their responses about the impact of mines than those which were visited months after the removal of mines.

It is well known that removing mines does not automatically re-establish the pre-landmine state of affairs thus the impact of demining cannot always be predicted at the start, even though many assume the impact based on what communities describe as the direct and indirect effect of mine/ERW presence. Together with the difference in responses from stakeholders before, during and after the removal of mines, this highlights the need to assess impact throughout the project cycle rather than at a specific end-point. Every stage of enquiry will provide a different facet, starting from the impact of mines themselves eventually moving on to the impact of removing the mines.

### Information Collection

“The design of an impact-assessment system depends on its primary purpose (proving vs improving), the balance that is struck between the interests of various stakeholders, and the resources that are available, competence-wise as well as financially. In broad terms a system consists of a methodology for gathering data and a framework for analysis...Analytical frameworks—based on certain assumptions about how interventions cause impact—may focus on single or multiple issues, and may be rigid or flexible in character. While the tendency is for quantitative data to go with rigid analytical frames (and a ‘proving’ objective—the donors’ preference) and for qualitative data to go with more flexible ones (and an ‘improving’ objective—the practitioners’ preference), the room for various combinations is unlimited.” (Harpviken et al. 2003)

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<sup>12</sup> Harpviken et al. 2003

<sup>13</sup> Downs 2006

Information collection in the demining sector currently focuses on the following:

- The areas impacted by landmines and other ERW
- The physical properties of the contamination
- The concentration of contamination
- The basic impact on population masses exposed to the threat<sup>14</sup>

While such indicators may be useful for measuring the efficiency of site operations, they are not meaningful indicators of programme results. The LIS has established meaningful country-specific baselines against which progress can be measured. Among the success indicators to consider are:

- Number of blockages existing/removed
- Number of high- and medium-impact communities in a country
- Share of high- and medium-impact communities in annual work plan
- Number of high-risk SHAs
- Number of new mine victims
- Number of mine-affected communities
- Number of people living in mine-affected communities
- Total area contaminated
- Traditional output measures<sup>15</sup>

Changes in any of these indicators will reflect progress against national mine problems, and they can be aggregated to estimate global progress toward solutions for the worldwide landmine problem.

### Landmine Impact Assessment Teams

After the Afghanistan Landmine Impact Survey (ALIS), the Mine Action Center for Afghanistan (MACA) converted survey teams into LIATs and deployed them to the regional AMACs to continue community visits in order to validate findings and update the database. In May 2007, after training LIATs for the job, MACA started to conduct PDIA, described in greater detail below. There are currently 16 two-member LIAT teams. LIATs question villagers on the type and quantity of crops grown, the type of livestock and the number of months they used grazing land, the length, width and traffic of new roads, the number of shops or restaurants built on land used for commercial purposes, the number of houses rebuilt, and the number of families benefiting from newly released land used for residential purposes. LIAT teams explain that they are given forms with such questions by the AMAC; they have no say in the design of forms and apart from information collection, make no other input into the impact assessment process.

Information collection systems for a variety of functions are in place and both LIATs and other staff perform their activities conscientiously although somewhat mechanically, ensuring that the range of forms listed in the Afghanistan Mine Action Standards (AMAS) are filled out on time. Many forms collect similar information for different purposes. There has to be a willingness and capability to use information to analyze and inform the various stages of a demining project however. This was most definitely lacking among Afghan staff in the MACCA and in the AMAC visited. It would seem that they

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<sup>14</sup> Dugger 2006

<sup>15</sup> Downs 2006

endlessly collect and input information for the use of superiors, mainly expatriates, but never really use the information themselves. For example, if LIATs and AMAC staff had read the 2005 ALIS they would have noted that the ALIS identified 943 abandoned villages, only nine of which were abandoned due to the presence of landmines and that according to local shuras “landmines played only a small part in determining why people fled their villages” with drought and massive destruction caused by war being the main reasons why villages were abandoned and still remained empty in November 2004. This in turn should have made them wary of assuming that all inhabitants of certain locales would return once demining took place, leading to questions about reasons why former inhabitants have stayed away.

LIAT teams stick to the forms they are given and generally seem uncomfortable when interviewees give responses beyond those required. In such instances they abruptly cut the flow of the discussion. As a result potentially interesting and useful information, which LIATs consider peripheral because they are not printed on the form, is lost. Information collection then largely becomes a one-sided process rather than a consultation and the design and/or limitations of forms determine the efficacy of the process. LIATs are fixated on meticulously collecting specific types of micro-level information, mostly on economic benefits which they assume have resulted from mine clearance. They believe this information is useful because it shows how the removal of x number of mines has quantifiably impact y people’s day to day lives. They are not aware how the AMAC uses the information they collect. LIATs are generally more comfortable with the figures and calculations involved in economic analysis rather than the slightly more nebulous aspects related to the ‘people’-end of activities and social impact assessment. This probably reflects their education, training and experience. Evidently economic analysis has a narrow focus because it is impossible to assign economic values to non-economic values such as human lives, loss of physical or mental capacity etc. as a result of the presence of landmines.

There was an overall impression that collecting the information was fundamentally about completing steps in a linear process rather than loops feeding information and analysis back into a learning environment. Until discussions with the consultant took place, LIATs had never considered the rationale for the information being collected. The lack of LIATs’ awareness of where their information actually ends up indicates that processes are mechanical, somewhat hierarchical and not geared towards organisational learning. This was referred to as ‘mindlessness’ and a tendency to follow the plan and lack of sufficient community liaison skills by Todd and Davies (2008). The attitude evident among those who accompanied the consultant to the field was to perform a technical task, part of a process for which beneficiaries should be grateful. Interactions, especially in terms of information exchange were one-sided and extractive. There was no sense of a participatory process although all staff were respectful. The absence of effective two-way communication may in some instances eventually lead to lack of trust where some communities encountered vocalised concerns that de-miners were slowing down their operations on purpose or even replanting mines in order to have work to do.

The head of the AMAC in Kabul explains that the information collected by the LIATs forms the foundation of the work carried out but it is probably fair to say that short of technical issues and quantitative output data, information collected on impact assessment does not affect day-to-day field management. In fact, he seemed unfamiliar with the content of forms and information he had on his wish list would be readily available from existing forms with a little analysis of data collected. Interestingly, according to the LIATs even basic comparison between forms exploring the pre- and post-demining phases in a community does not take place. Clearly, LIATs and others need a better understanding of broader impact issues among all relevant stakeholders, as opposed to the narrow output definitions they work with. All those involved in information collection need to understand clearly why they are collecting information and for whom. Additionally, information collection should

also involve clear indications of whom information will be shared with on different levels from communities to governments and donors.

## Post Demining Impact Assessment

Post Demining Impact Assessment (PDIA) is similar to confirmation assessment and determines whether humanitarian demining operations have achieved their objective of minimising or eliminating the impact of mines and ERW on affected communities. Additionally, there is a need to assess the accuracy of the information upon which decisions for priorities for demining were made. The PDIA is conducted through LIATs/AMAC OPS Assistants, managed by the AMAC. An assessment is conducted a minimum of six months after demining operations in an affected community's area have been completed, to allow sufficient time for the work to have an effect on the community. LIATs are given as much information about the area to be reviewed as possible. As a minimum this is to include LIS information, confirmation assessments, technical survey reports and completion reports for the area concerned.

The requirements of a PDIA are to:

- a. Ensure that the purposes for which demining activities (clearance or marking) were carried out have been achieved.
- b. Ensure that the communities remain confident in the safety of the cleared land.
- c. Ensure that uncleared (marked areas) are not having a negative impact on the communities.
- d. Identify if further demining operations are required in the community area.
- e. Ensure that the land is being used for the purpose for which it was cleared and that the original clearance depth is still sufficient for the current and likely future use of the land.

Other objectives include determining whether the humanitarian objectives have been achieved and collecting information for communication to donors.

The information required from a PDIA for each affected community is shown on the Post Demining Impact Assessment Report. These reports are submitted to the AMAC within three days of the PDIA being completed. PDIA reports are analysed by the AMAC and the results summarised and included with the PDIA for each community. The process for using the PDIA information is as follows:

- Report sent to MACA MIS section on a weekly basis and entered into PDIA database
- MACA plans section consolidate the PDIA reports sent by AMAC
- MACA plans section analyses PDIA reports for outputs/outcomes and communicates to donors for programme section when necessary
- PDIA plan progress summary report

There is no clear analytical framework beyond extraction of basic quantitative information for the PDIA data at present.

The PDIA was carried out until May 2008 when LIAT teams were transferred to the polygon survey process. The polygon survey has been converting all known Suspected Hazard Areas (SHAs) into minefields by redefining the hazard area through a systematic survey process which provides a more accurate delineation of the perimeter of a SHA. The PDIA is currently a cross between an impact

assessment, quality control<sup>16</sup> and customer satisfaction form. It performs each task imperfectly. The information collection is also a hybrid between double-checking the LIS data together with a one-off micro-level economic cost-benefit analysis. The following are observations about PDIA:

- Most significantly, the data is collected but not always analyzed in a way which allows lessons learnt to be fed into day to day procedures.
- In cases where uncleared areas are having a less tangible effect on the community by blocking access e.g. fuel bushes only available in mined areas or scrap metal available in mined areas where some sectors of the community have little or no access to employment, identification may or may not take place but this does not necessarily lead to a change in standard demining processes.
- Currently LIATs attempt to identify whether land is being used for its original purpose but being rather fixated on basic economic cost-benefit analysis they fail to capture alternative uses or situations where land is not being used. In cases where cleared areas are not being used they look for demining issues and in the absence of any fail to probe further.
- AMAC staff appear not to be receiving information which tells them what percentage of cleared areas is not being used by people and why. They assume it is fear but there may be other reasons which LIAT teams, lacking a broader perspective, have not picked up. It would seem that there is something wrong either with PDIA information collection, analysis or result dissemination if this information is not reaching the AMAC.
- It was observed that AMAC OPs assistants would investigate situations where people were injured or killed in areas where demining was taking place. It is not entirely clear how much LIATs/AMAC OPs assistants actually ensure that the marking systems used are effective in protecting people. This has a great deal to do with effective ways of marking hazardous areas.
- AMAC OPs assistants do identify whether any mines, UXO or other hazardous components have been located on any cleared land. They do also determine if any other hazardous areas have been identified in the community's locality.
- Finally, there is no shift in a direction which sees community involvement in operational planning and priority setting; and measurement of the progress and impact of mine-action programmes. As mentioned, processes are extractive and information collected is not shared with mine-impacted communities after analysis.

It was clear that the competence built and data generated by impact assessment remain poorly integrated at different levels and probably within most Afghan organisations working on demining.

Currently, information is not collected rigorously from a quantitative or qualitative point of view. The PDIA is an interesting hybrid where quantitative information is used to update the results of the ALIS and qualitative data is also collected but not analyzed. In order to provide reliable and valid data, statistical surveys have to be well done using relevant expertise and a thorough methodology. They are costly but a statistical survey designed to show overall impacts can be a one-off event e.g. the ALIS. Qualitative surveys also require expertise and training. Whereas there are formulae for determining sample sizes for quantitative surveys, depending on the topics being investigated, for the qualitative the rule of thumb is to continue until interviewee responses become repetitive. Qualitative surveys cost considerably less than well executed quantitative surveys. Since impact assessment should both 'prove'

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<sup>16</sup> Interestingly Todd and Davies (2008) described the quality assurance system as 'tokenistic' and 'not fit for purpose'.

and ‘improve’ quantitative and qualitative approaches can be used at different points in operations to provide relevant information.

In some cases, it may be advisable and desirable to ‘piggy back’ on the information collection processes of others. Some organizations are already collecting mine-related information on a regular basis. The well known ones include the Afghan Red Crescent Society (ARCS). The impact of landmine disability on livelihoods will be visible in the next National Risk and Vulnerability Assessment (NRVA) survey (2007-8) but not the impact of landmine deaths or the impact of fear and avoidance of mined areas on livelihood options. This sort of information is best collected using a community study approach although it may be possible to cover some aspects in future NRVA questionnaires. The information collected by the NRVA will demonstrate how landmine injury affects family livelihoods and the lives of individuals by asking questions on the specific types of difficulties faced by the land-mine injured and how it impacts family life (e.g. difficulty hearing, seeing, walking, with self-care, etc.). By asking when the specific problem started it will also be possible to calculate more accurately the sex and age of the land mine injured in the sample and the period when they had their landmine/UXO accident. The NRVA could include more questions related to the distortion of behaviour as a result of the presence of mines such as longer travel distances and times as a result of the need to avoid minefields e.g. in going to collect water or firewood.

The Afghanistan Research and Evaluation Unit (AREU) may be prevailed upon to assist with more qualitative research. The World Bank, as mentioned, occasionally conducts studies on the impact of mine clearance and has substantial resources to do so meticulously. The National Disability Survey also provided interesting information on landmine related injuries and their impact. The key is to have contact with the relevant fora in order to know when studies are going to take place so inputs can be made at the design stage. This can be difficult as there is no body which currently coordinates research activities in Afghanistan but regular contact with existing research bodies and donor groups should be sufficient.

### Target groups

The methodological core of the LIS is community interviews. Teams of surveyors interview groups of people who should ideally both be relatively representative and have solid knowledge of the landmine problem, an approach inspired by rapid participatory appraisal techniques commonly used in humanitarian assistance. Community interviews also form the basis of the economic analysis conducted by LIATs. Identifying relevant stakeholders, whether they are harmonious or in conflict, is crucial:

“The stakeholders with the least power to affect routines, however, are the clients—the people affected by landmines. One ultimate objective in designing impact assessment is to serve and maintain the interests of the clients...Truly securing the interests of mine-affected people, however, also implies the ability to represent their various perspectives, in priority setting as well as operational design. Mine-affected communities are not necessarily more harmonious than other social collectives. Since any society will have differences of interest, impact is not evenly distributed: at the extreme, a demining operation might benefit some while disadvantaging other members of the same community.” (Harpviken et al. 2003)

Overall, interview categories in the PDIA and related forms reflect a bias towards those in the military, those with authority and other categories of the ‘learned’ rather than those who may have a different but long-term and direct experience of the presence and impact of mines. Such individuals may be encountered accidentally rather than as part of the planned process. Women are completely neglected

based on assumptions of little or no mobility and/or lack of relevant knowledge. The occupation categories in the various forms used for information collection are as follows:

- Category 1: Government, Shura Elder, Malek
- Category 2: Farmer and Shepherd
- Category 3: Military, Former military
- Category 4: Shopkeeper, Businessman, Teacher or Student
- Category 5: Others

LIATs felt that interviewing anyone other than local elders and leaders would be thought insulting and that they would lose the cooperation of such people making their work in the community difficult. Although this is true, community leaderships can gently be coerced to allow access to other categories of people. In one village, for example, conflict between the National Solidarity Programme (NSP) Community Development Council (CDC) members and the local maleks was evident but the demining personnel were mostly dealing with the maleks. This lack of enthusiasm to look beyond specific 'traditional' categories has hampered a better understanding of how different socioeconomic groupings interact with mined areas. The interview group should reflect different levels of interaction with the minefield.

## Gender

During September 2008, for the first time the MACCA solicited the views of Afghan women on mine action. A MACCA team conducted a survey in three provinces of the country with the purpose of assessing the attitudes of women to mine clearance and mine risk education. The survey interviewed 300 women. The results were unsurprising in that women from communities with or without mines expressed the negative impact of mine contamination through direct results of changes to their day to day lives and/or injuries and deaths of relatives in mine related accidents. Significant in this group was the 6% of women in communities where demining was taking place who had had husbands injured or killed by landmines, becoming female-headed households with all the negative socio-economic and cultural baggage which that entails in the Afghan context. The research found women expressing sadness and anger. Although this research is interesting and represents a step in the right direction, some critical gender issues were neglected.

Information such as that provided in the following paragraph has justified a male-dominated approach in the demining sector which, being tied to the military, has quietly avoided the inclusion of women, particularly in patriarchal contexts such as Afghanistan:

"At least 60% of all recent victims are males, mostly clustered in the prime working years of 15 to 44 years of age, but a disturbing 17% of the recent victims are between the ages of 5 and 14. Two-thirds of the girls injured or killed between 5 and 14 years of age were herding or collecting firewood or water at the time of the incident...Although, in the most general terms, the typical profile of an average mine incident victim in Afghanistan is a working-age male collecting wood or water or herding his animals, the number of children maimed or killed is extraordinarily high."<sup>17</sup>

It may be that such figures must be countered by carefully examining gender imbalances in staffing and reporting. One of the most important considerations is that data collection focuses on community males

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<sup>17</sup> ALIS 2005

simply due to lack of female staff. Existing questionnaires show no interaction with females. Information collected is only as complete and reliable as the sources providing it and exclusion of certain categories will no doubt create limitations to the breadth and depth of data collected. Similarly, it was observed with one group of interviewees that they did not mention female injuries or deaths unless specifically asked. It may be that there is a gender issue in the reporting of deaths where female fatalities are not brought up by conservative staff and not mentioned by equally conservative community members. When this issue was brought up with LIATs the response was that women are at much lower risk since they do not generally leave their homes. This is a highly erroneous assumption which may apply to some communities but certainly not those in which women are highly mobile and involved in activities such as agriculture, care of livestock and lopping wood or collecting medicinal plants. Among Kuchis, men, women and children are all highly mobile on roads and around encampment areas. The argument that women stay at home certainly cannot be used to avoid interacting with Kuchi women should there be a hazard in a grazing area they frequent.

In much of the documentation, engagement with women is only mentioned in relation to MRE and then in small numbers. Minimal interaction with women can translate into less awareness-raising for children since women manage children's labor and allocate household tasks such as fuel and water collection. Lack of awareness of a mine risk or its severity among women can pose a serious risk for their children as evidenced by the alarming statistics for mine victims. Involving women in impact assessment could present a useful way to raise awareness about mines beyond MRE.

Discussions with staff showed a substantial resistance to gender equality and equity and very conservative attitudes. They also revealed an almost complete lack of understanding of the lives of rural women and the risk to mines which they face. The immediate response in relation to the inclusion of female staff was that the polygon survey was too rough for women. They felt female staff are not needed for information collection because women in communities do not have interesting information to offer. Only one LIAT mentioned that in a remote area an old lady chopping wood in the forest had reported a mine but that even then she had done so through her son. It would seem that movements of the small number of female staff in the demining sector are very limited and they are only allowed to go to areas deemed 'safe' and 'appropriate' by male staff. This range is very limited in comparison to female staff of other organisations operating in the field. In fact it would seem that much of the discussions and changes which have taken place in relation to gender relations in the Afghan workplace have passed the demining sector by.

## Prioritisation

Once a pre-assessment is conducted on a minefield it may be one or two years before demining teams arrive in which case changes may have occurred. Someone from the AMAC will visit and provide information for the planning and prioritisation process. Prioritisation occurs according to the list of objectives below which, according to interviewees, has been provided for them and into the development of which they did not make an input. The MACCA asks for information to be compiled according to the list and the AMACs comply. MACA's 2008–2009 Coordinated Operational Implementation Plan focuses clearance on the following:

- "Killing zones" (areas with recent casualties);
- hazards within 500m of the center of a community;
- high-impact districts and communities;
- areas with cultural or other benefit;

- highly contaminated districts, focusing on the worst impacted;
- small minefields;
- the “doables”; and
- achieving the goals of The Afghanistan Compact and meeting Mine Ban Treaty obligations.

Current PDIA fails to highlight situations where original prioritization was erroneous because land was used differently, benefitted less people or was not put into productive use immediately. In reality, it is unclear how PDIA reports are used to justify priority setting, if at all. MAPA guidelines state that priority should be given to clearance of land that will immediately be put back into productive use once it is free of mines but in spite of credible community commitments based on consultation this does not always happen, at times because communities lack the ability to do so. The case studies highlight some of the reasons why.

Theoretically, after mine-clearance, PDIA is supposed to check, using the information collected, to decide whether the assumptions formed to prioritize clearance, and by extension to make spending decisions, were correct. This check does not take place as the assumptions as to what the likely impact of clearing land are never explicitly stated and written out on a case by case basis. Prioritisation of high impact communities for clearance is meant to provide greater benefit at community and national levels but removing a blockage may not eliminate the effect – communities may not return to their previous activities. Prompt use of land is an important factor which should be assessed as part of the planning process since lack of use for an extended period cancels out the benefits of the clearance effort. In fact, a number of assumptions are made based on information collection before the mines are cleared.

The current prioritisation/justification system is based on assumptions of a static operating context. Population growth, urbanization and other processes mean that land is not being used for the same purpose as it was used when it was mined. This confuses LIATs collecting information for the PDIA, trying to calculate the economic benefit of mine clearance to a community. Their approach is highly formulaic and cannot deal with situations where agricultural land has been cleared and used to build shops or grazing land has become a residential area. Their forms are designed to prove economic benefit based on infallible assumptions but reality asks them to perform a comparison and supply information which could improve prioritisation.

There is no feedback loop in the system which allows the PDIA information to address the validity of prioritisation except in relation to technical issues, most specifically depth at which mines were cleared. Such checks may find that an area with ruined houses was cleared but x households did not return due to internal conflicts, that agricultural land was cleared but the owner being wealthy decided to build shops and that there was not a widespread impact for the community, or that once ERWs were removed from an area poor people collecting scrap metal moved on to another nearby minefield, continuing to take risks. This would not halt the removal of mines but would alter the sequencing of demining activities and/or indicate the need for cooperation and coordination with other agencies which can address issues such as conflict resolution within communities or employment generation for the poor. Demining raises expectations and for operations to have the desired impact there must be strong coordination with other development actors so that sequencing of complementary activities is well-timed.

## Three Methods for Impact Assessment

Harpviken et al. concluded that no single approach provides the full answer to the need for impact assessment in mine action and combinations of methods can complement each other. Broadly, Survey Action Center (SAC) instruments are sound for the more general impact survey and for the first prioritization of tasks. Economic analysis is only useful at program level but must be complemented by approaches examining non-economic dimensions. Community studies can complement the LIS, once key priorities are established, identifying impact issues specific to communities and possibly developing local indicators which will ensure a relevant focus when implementation takes place. There is a possibility to incorporate other approaches in addition to the ones mentioned here. For all approaches, however, it must be stressed that implementing staff need to have a basic command and knowledge of impact assessment making capacity building a priority and an integral part of any larger impact-assessment initiative.

The data collection systems currently in use in the Afghan context focus on the LIS and economic analysis. Some information which follows the Community Studies methodology is also collected but this is fragmented and generally not analysed or integrated into planning and prioritisation processes. The emphasis on simple, representative and clear indicators holds true but all impact assessment approaches privilege certain issues while downplaying others. The following table, adapted from Harpviken et al. provides an overview of the main pros and cons of the three methods which can be used to assess the impact of demining activities. Once again, it must be stressed that using any combination of new or existing impact-assessment tools needs to be followed up by competence building, not only in conducting a snap-shot study such as a survey but also to handle a continued impact-assessment process as implementation moves forward, from one phase of the project or program to the next.

<b>Landmine Impact Survey</b>	<b>Economic Analysis</b>	<b>Community Studies</b>
<ul style="list-style-type: none"> <li>• Data collected through community interviews and use of composite indicator approach as basis for priority-setting</li> <li>• LIS impact indicator described as 'compassionate measure', placing significant emphasis on victims</li> <li>• Does not capture considerable landmine risk</li> <li>• Covers impacts in a variety of dimensions and is a sensible approach to collecting baseline data and setting priorities</li> <li>• Usefulness depends on extent to which full data gathered are conveyed to implementers on the ground and means by which survey data are actually put to use in implementation and post-implementation phases of projects</li> <li>• In some cases, provides too much context-specific information making it useful only at community level.</li> <li>• Leans too far towards output rather than impact</li> </ul>	<ul style="list-style-type: none"> <li>• Has advantage of relating impact to costs</li> <li>• Understanding of impact largely restricted to economic arena, although some analysts seek to include death and injury in the calculus</li> <li>• More complex formulas covering a range of impacts are also conceivable</li> <li>• Ultimately, however, there are both ethical and methodological problems in formulating various forms of impact in terms of economic values</li> <li>• Inherent risk that the uncertain assumptions upon which any such analysis rests are veiled by powerful and apparently unambiguous logic of reporting in numbers.</li> </ul>	<ul style="list-style-type: none"> <li>• Still in their infancy as a tool for implementing agencies</li> <li>• Their openness to a variety of impacts, as well as to the interplay between different factors, constitutes their primary quality</li> <li>• Focusing on community level almost inevitably favors the community studies approach</li> <li>• If taking larger perspective, difficulties in aggregating qualitative data come to the fore</li> <li>• Another drawback is its demands in terms of time and competence required, although there are ways to work around this problem by building the required skills within existing structures and possibly further simplifying methodology and reporting formats</li> </ul>

## The Afghanistan Landmine Impact Survey

Currently the LIS is the dominant impact-assessment tool in HMA. The analytical framework is centered on a composite indicator, called the Mine Impact Score (MIS). This is composed of three types of variables: nature of contamination, function to which access is blocked and number of recent victims. The nature of contamination is covered by two variables: presence of landmines and presence of UXO. The blocked-access category consists of a total of 10 variables, adapted to the particular country context, and may include, for example, crop land, pasture, water points, residential areas or other infrastructure<sup>18</sup>.

“Notably, the LIS establishes the impact of landmines: it does not assess the potential impact of HMA interventions. Emphasising impartial and reliable measurement of the landmine problem globally, the LIS sees donors as a primary audience. Yet this does not necessarily exclude local stakeholders, as the survey applies a rapid participatory appraisal technique that ensures a level of ownership, and thus legitimacy for the survey. Also, the survey spans all levels and, although the community is its primary level of analysis, it ultimately maintains its ambition to obtain comparable data at the global level. The composite indicator has been developed to fill the needs of a basic-impact survey, and is not in most cases a sufficient basis for launching an operation in a selected community. Hence the survey is relevant primarily in the earliest phase, when setting priorities.”<sup>19</sup>

The fieldwork for the ALIS was conducted between 2003 and 2004 and identified 2,368 mine-impacted communities. The ALIS mapped all the historical data and continues to update its information from a variety of sources. It did not however capture the complete socioeconomic picture. The survey findings provided data for the government of Afghanistan to design “a national mine action strategic plan encompassing reconstruction and development planning, new possibilities for a sharply focused casualty reduction strategy, and the establishment of a post-ALIS surveillance system that will capture casualty reduction activities and reconstruction/development-related mine action activities to use for measuring progress and impact, systematic planning, and reporting to donors”<sup>20</sup>.

In general, the LIS is considered costly by some while only providing a snapshot of the landmine situation. It requires regular updating to remain relevant and little of the technical information may actually be vital to planning. In the Afghan context, for example, mined areas which were previously wasteland and therefore low priority, for example, may suddenly become returnee settlements changing their status. The LIS does not reflect some of the rapid socioeconomic changes which have been taking place in Afghanistan and which may change the impact of certain minefields. The validity of the findings may also be questionable, pointing out the short training periods for those carrying out the studies and the little time devoted to each community visit. It was claimed that the ALIS data can assist in defining a casualty reduction strategy. This depends on the reliability of data on landmine deaths and injuries. In remote or difficult terrain where people travel long distances for a variety of reasons people may well die from landmine injuries and their bodies may not be found for months. Generally, deaths are not always reported in Afghanistan and the actual number may be higher than recorded. The ALIS shows, for instance, that men of economically active age have suffered most from mine/UXO accidents, in turn leading to better targeting for mine awareness programmes. Fieldwork revealed however that

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<sup>18</sup> Harpviken et al. 2003

<sup>19</sup> Harpviken et al. 2003

<sup>20</sup> ALIS 2005

there may be gender biases in reporting deaths and injuries which means that the profiling of victims may be incomplete.

Some information for the LIS is supplemented from other sources. The ARCS currently collect data on landmine injuries and deaths for example. This information has until recently been supplemented by information from other organizations and ICRC is still supervising the work of the ARCS. This data may be flawed but it is still considered reliable. AMAC staff were unclear as to how the ARCS gathered injury data and assumed that they have personnel in district level clinics. Only 10% of 2638 mine-impacted communities have health facilities of any kind<sup>21</sup> and deaths are not recorded in Afghanistan which may reduce the accuracy of information on deaths and injuries collected using this system. MRE teams also record information on deaths and injuries as do demining teams but it is unclear whether this data is compared to official sources. The AMACs send staff to check mine accident details in areas where they are working or have a presence. It would seem that the focus of all these teams is on very recent incidents. UNDSS may also provide information on mine related incidents.

In defense of the LIS, it can be argued that it has prioritized robustness and the ability to collect data at community level, at the cost of not gathering detailed data on the degree of impact, size of minefields or various other constraints<sup>22</sup>. Its shortcomings must however be taken into consideration when considering it as an impact assessment method.

## Economic Analysis

The general objective of economic analysis is to establish future returns on various types of investment, the most common form being cost–benefit analysis. Economic analysis for impact assessment has a long tradition in aid and development and builds on a clearly defined analytical apparatus as well as a substantial body of knowledge. It is open to the inclusion of a multitude of factors and its most common application is to establish a template that can be applied across a number of similar situations<sup>23</sup>.

The form of economic analysis conducted by LIATs, although involving painstaking detail, is based on assumptions. It is very context specific and encompasses so much diversity that it would be difficult to aggregate the data to inform broader planning processes and develop any templates. Byrd and Gildestad conducted a study for the World Bank on the economic impact of mine clearance in Afghanistan in 1999-2000, the final years of the Taliban era. The study found the obvious benefits of mine clearance such as fewer mine accidents, higher economic productivity of people, improved human welfare, and lower medical costs. It also noted benefits such as net economic benefits from returning reclaimed land to productive use and reduced losses of livestock from mine accidents. This was in comparison to direct recurrent and capital costs, overhead costs and the costs of mine accidents during landmine clearance operations. Harpviken et al.'s caveats on the quality of information used must be taken into consideration, however:

“What [economic analysis] does require...is data that can be used to make sensible assumptions on costs and benefits, such as data on de-mining costs per area unit or on agricultural productivity. Data on the size of the area affected by landmines will also be needed—including a registration of the type of land (or other resource) that is inaccessible—as are normally derived from a regular mine survey. The ability

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<sup>21</sup> ALIS 2005

<sup>22</sup> Harpvilken et al. 2003

<sup>23</sup> Harpviken et al. 2003

to draw on existing data sources, for example for agriculture, is a major strength of the economic approach, but even where such secondary data are available, they may be of poor quality.” (Harpviken et al. 2003: 898)

The type of data Harpviken et al. highlight was unavailable but the World Bank took the data from the Afghan socioeconomic study and built upon them in a wider analysis, towards a formal cost–benefit assessment. The Afghan socioeconomic study, a first draft of which was launched in autumn 1998, was the first attempt to apply a form of economic analysis in HMA. The study was based on revisiting all 5513 minefields cleared by the MAPA. It included separate survey forms for establishing the impact of local-level projects, such as in a village, and larger level projects, such as a road. Without applying a cost–benefit formula, the study suggested that annual economic benefits to mine action totalled US\$65 million, against an annual expenditure of around \$20–25 million. The Byrd and Gildestad study for the World Bank found that MAPA's mine clearance activities generated substantial socioeconomic benefits, the net benefits estimated at \$ 31 million in 1999. The corresponding internal rate of return (IRR)<sup>24</sup> was 28%, well above any normal cut-off points used in the socioeconomic analysis of public sector or aid-financed investments. The IRR remained robust even after significant cuts in the number of mine victims:

“If in addition the estimated number of mine accident victims per year is cut in half (i.e. to 2,000), the benefit-cost ratio<sup>25</sup> declines to 0.6 and the internal rate of return to 19%. Thus the socio-economic justification for mine action appears to be quite robust to changes in important estimates/assumptions used in the analysis, especially when it is kept in mind that there are additional, non-quantifiable benefits from mine clearance for individuals, families, communities, and societies. Moreover, even if there has been a significant reduction in the incidence of mine accidents in the last year or so (which some reports suggest), the sensitivity analysis demonstrates that the socio-economic returns to demining would still be sufficiently high to fully justify the resources devoted to the mine action program.”

At the time, the study prioritized land as follows:

- Top priority should be given to clearance of irrigation systems and roads (which carried extraordinarily high returns)
- Also high priority to productive agricultural land (carries high returns)
- Low priority to clearing grazing land (except using dogs)
- Residential land less clear (difficult for collapsed buildings)

Evidently the situation with regards to the clearance of different types of land has changed drastically with the socio-economic changes which have been taking place in the years following the fall of the Taliban.

Some find it unacceptable to place an economic value on deaths and injuries, on ethical and methodological grounds. The World Bank study estimated net present value of the total individual socioeconomic loss for a mine accident fatality at \$11,700, which was very conservative even taking into account Afghanistan's poverty at the time. It may be possible to calculate the economic burden of disability but mental health problems related to trauma, anxiety or depression are trickier to quantify, especially where the sufferers are women whose economic contribution is not given value anyway.

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<sup>24</sup> Internal Rate of Return = The Discount Rate which makes the value of discounted future benefits equal to costs.

<sup>25</sup> Benefit-Cost Ratio = (Benefits – Cost)/Cost (all discounted at 10%). The time horizon used was 15 years.

Byrd and Gildestad explained that expanded and more systematic use of cost-benefit analysis requires better data. Information on the numbers of victims of mine accidents was incomplete at the time of their study and although much improved may still have problems related to data collection and coordination among the agencies responsible. Data on mine accident victims gathered as part of a broader household survey would be very useful in assessing the longer-term impact of mines on Afghan society as a whole and could at this stage be gathered through the NRVA.

Although Byrd and Gildestad argued for regular, systematic use of cost-benefit analysis to be introduced into the operational decision-making process for mine clearance the efficacy at community level in a mosaic country such as Afghanistan is arguable. Improved and more systematic data collection needed for this purpose was introduced but greater community participation in the planning and prioritization of mine action, on the basis of full information on relative costs and benefits of different options was not encouraged. The World Bank is currently planning a landmine database and analysis on the economic impact of mines in Afghanistan in collaboration with the UN Mine Action Service<sup>26</sup>.

As Harpviken et al. Conclude on economic analysis:

“The focus on economic impacts, or on assigning an economic value to what most people consider fundamentally non-economic values (such as human lives), gives economic analysis a narrow focus on what landmine impact is, disqualifying it as a dominant approach to impact assessment in HMA. The ability to base analysis on pre-existing data ideally represents a major advantage, yet the reality is that such data tend to be difficult or impossible to find in countries emerging from armed conflict. Finally, while economic analysis of mine action has been applied in some programme evaluations, it has not been applied as a basis for priority setting by any programme.”

## Community Studies

Community studies represent an explicitly open approach to impact assessment and can provide or supplement information on the political/governance, economic, social, psychological and developmental aspects of demining. They do not seek to establish impact based on a limited set of predefined variables but aim to provide a broad profile of the community afflicted by landmines. They can qualify as a type of quick ethnography. The studies are guided by the idea that significant impacts may be identified in several fields in the community, beyond the otherwise almost exclusive attention to accidents or economic impact. Community studies therefore also look at issues such as the impact of landmines on migration or their role in relation to cultural or religious issues, which, while they may prove to be of major importance in one community, could be negligible in another. Besides being oriented towards a broader range of issues than other approaches to impact assessment, the community studies approach looks at the interaction of different factors. Globally, few community studies have been conducted to better understand the impact of mines/UXOs on people's lives.

The strength of community studies comes from the attempt to represent a variety of local interests and as interventions move from an emergency to a development phase, with the focus increasingly shifting from national to local level, community studies become more relevant. The data generated is difficult to aggregate limiting their potential as a prioritization tool at national level. Community studies can be used at all phases of a project but in larger operations their usefulness would be to make a thorough

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<sup>26</sup> Personal communication on 27 January, 2009 with Gary J. Milante, Conflict Economist at the World Bank.

impact assessment of communities prioritized using other methods. They are adaptable, favoring an ability to make impact assessment part of an ongoing process, rather than simply one event in a sequence of project implementation events. They have not been applied on a significant scale however and their main rationale is to complement other approaches.

The community studies approach combines various methods of data collection: group interviews, open interviews with key informants, survey, observation and documents. This also means that data gathering techniques include both those that are fundamentally participatory (i.e. group interviews) and those that are not (i.e. survey interviews). In principle modified versions of the approach could exclude one or more data gathering techniques and focus more heavily on others. The fundamental strength of combining methods—triangulation—is that various methods generate information on various issues, but also that information on the same issue from various sources provides a solid reliability test. The International Peace Research Institute in Oslo (PRIO), has attempted to develop a focused package for community studies that can be applied by operational agencies as a complement to other impact-assessment approaches<sup>27</sup>.

LIATs collect information on the history of a minefield and events related to landmines which approached with a greater focus on qualitative information and in more detail can contribute to a community study approach. LIATs gather information related to the history of the community and the conflict but the disparate collection of information in separate forms without a corresponding analytical framework and the lack of a narrative report where all the information is brought together and analysed may reduce the current usefulness of this information as it is never pieced together to represent the whole picture. Interestingly in compiling community histories LIATs can miss critical signs such as one case where the community was in the process of land grabbing and therefore had no graveyard anywhere near the village of hastily constructed dwellings.

The difficulty with community studies is that they are demanding in terms of competence, and each study takes considerable time to complete. Some critics question their relevance as an impact-assessment tool on these grounds, arguing that the costs outweigh the benefits. On the other hand, necessary competence can be built locally and will not entail extraordinary costs if integrated into existing organizational structures.

## Case Studies

Although there has not been adequate time to conduct full community studies, the following case studies based on field trips to villages highlight some of the more interesting issues which might not be picked up by the LIS or local economic analysis. They indicate the benefit of a community studies approach to complement other approaches and highlight many of the issues discussed in this report. The time spent in each community and the number of communities visited makes it difficult to determine whether these issues are widespread or unique to specific villages.

### Case Study 1: Koh-i Mohmand

Some of the points highlighted in this case study include the importance of mapping paths across lands, not only in relation to economic activities but also to lifecycle and religious events, and, how laying mines in an area signals an abrupt end to one's interaction with the land and landscape. This happens

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<sup>27</sup> Harpviken et al. 2003

differently for long-term inhabitants, new arrivals, young and old, male and female. There is also an indication of the development of unusual beliefs about mine disability. Another point of interest is temporal spikes in high risk activities such as scrap metal collection at times when money is needed. Finally, another issue which has been discussed in a number of documents is the impact on community resilience when supporting significant numbers of the mentally and physically disabled in conflict and post-conflict settings.

The interviewees in this village immediately pointed out that the mined area had been used for grazing, for access to a local, popular shrine and graveyard, and as a leisure place because of the great panoramic views. There was a sense of people's connection to the land for economic purposes and to the landscape for a multitude of reasons including many which cannot be economically quantified. The area had initially been mined by the Russians to protect a military installation. Junbesh militias took over from the Russians once they departed. Old established orchards and vineyards in the vicinity were removed to provide better views of approaching enemies. People were robbed, intimidated and generally harassed by Junbesh forces. People and animals were killed. Women and children's mobility was severely constrained by mines and the threat of abduction or abuse. The mine problem, as described by older community members, was an injustice intertwined with the narrative of other abuses perpetrated by the militias. The landscape, history and politics had become permanently linked in the minds of some through the presence of mines.

One mine victim had small children when he had his accident and his family had to live on charity. He described his own recurring nightmares and also explained that some people in the community had had severe mental problems after mine accidents. He and other interviewees explained that immediately after the accident his child was born disabled. It was unclear whether this was attributed to problems with the man (disability) or his wife (trauma) as a result of the mine injury. He went on to explain his shame at being a burden on his extended family and the stigma he faced for being disabled and being addressed as "The Lame One" rather than being addressed by his name in the community.

At one stage, mines were being brought down from higher areas on the hillside by soil erosion and women became more anxious when men and children left the house. The number of households has nearly doubled and mine clearance has allowed houses to be built to accommodate the expansion of the community. Interviewees could not estimate the number of poorer households in the village but understood well how economic pressure forces people to take risks in minefields to find a livelihood. They talked about poor shepherds losing life and limb. In another case, children eager to make money before Eid collected scrap metal and tampered with a UXO. One lost his hand. On another hill nearby, where demining has yet to occur, four labourers extracting rocks have died recently. There was a sense of community sadness as neighbouring villages attend each other's funerals. One elder explained that:

"Every event on this hill...has had a very serious and negative effect on the whole community together with psychological impacts on the individuals and families affected."

Demining has allowed people to relax and to resume their intimate economic and other relations with the landscape. It has allowed the expansion of the village now that families have grown and returned from Pakistan – this in turn has allowed extended families to be reunited which in a family-oriented society such as Afghanistan is a very high priority.

## Case Study 2: Biri Warsak

This case study clearly highlights the need to sequence and coordinate development activities in tandem with mine clearance activities. This was also the only village where it was possible to interview women. This is a returnee community of some 380 families living in newly constructed houses. There used to be a Russian camp nearby and Bagram airbase is visible in the distance. The area was a battlefield, contaminated by mines and UXOs. The houses are near a firing range and there were numerous loud bangs during the interviews. According to interviewees, loud bangs send people scurrying out to see whether there has been a mine accident and can create significant levels of stress especially among women.

The community is far from the main road which leads to markets, places where there might be employment and medical facilities. People's main worries are about their children having accidents with landmines as mine clearance is ongoing and anxiety about employment. They have seen Kuchis lose animals but lack of economic opportunities mean that some people are forced to take risks and collect scrap metal. Distance from markets and places of potential employment seem to be a bigger concern than landmines. People know where the mines are and generally stay away as much as possible. There is however a tangible sense of anxiety for a variety of reasons which may not entirely be removed once demining occurs.

One young man lost his sight, one leg and one finger. His father is disabled and he was the only able-bodied male in his family. His mother asked him to fetch fuel because guests were coming and she was in a hurry to cook. Whether she did this from ignorance or an overwhelming sense of pressure to obey local customs related to hospitality is unclear. He has had minimal victim assistance and was struggling. Women are worried about letting small children out of the house and out of sight. Fuel collection in a mined area, unemployment and the distance to the nearest clinic are the biggest concerns for women.

More houses will be built once the mines are cleared. People are not happy with the assistance the government has given them. When they were homeless in Kabul men and women had access to small jobs but here some are reduced to selling assets. Some talk of going back to places where they were before. The economic situation is cancelling out any positive effects from activities such as demining mostly because the economic, social and physical landscape is unfamiliar and people are uncertain whether they will form any long-term connections to the area.

## Case Study 3: Jaffarkhel

This case study highlights issues related to prioritization but with an unusual twist. People in this case are not afraid of using the cleared area but cannot do so because the demining agency concerned did not repair the road they themselves damaged nor did they check the possibility that another development agency could repair the road. The number of mines creating an economic blockage close to several populated communities made this a priority but the fact that the road still cannot be used sharply reduces the discounted present value of the socio-economic benefits and thereby weakens the justification for mine clearance. This issue was not picked up by LIATs or AMAC Ops staff. The absence of a number of families due to blood feuds should also have been picked up and considered by LIATs but it was not. Also of interest were the high levels of anxiety which women feel when minefields are in close proximity and feelings of fear and isolation felt by communities as a whole. In such case, it is possible to use standard scales for emotions (e.g. on a scale of one to ten how anxious are you when...) but whether such scales would translate smoothly into the Afghan cultural framework and difficulties with the

subtleties of translation might create problems. Finally, there are also indications in this and other case studies that landmines become one more item in a list of human security issues, security risks or environmental hazards that people have to cope with in trying to carve out their daily lives.

This community of Pashtuns and Tajiks living in harmony has coexisted with mines for a long time. At one stage their orchards and farmland had to be cleared of mines, laid first by the Russians and later by various Mujahideen factions. In recent years they have had two kilometres of road cleared. In it, deminers found eight anti-tank and fifty six anti-personnel mines. Five or six villages can use the road but currently because the de-miners had to explore at depth and made deep fissures everyone has to take a five kilometre detour diminishing the full impact of mine clearance. 300 school children take this detour daily. Since this road is not of national importance it is not a priority for development planners. It costs people more to transport their grapes and other agricultural products because of the detour. Kabuli and Pakistani traders cannot bring their trucks to the village to buy fruit. Many people come from Kabul to visit relatives in the village, park their cars and take the detour through the mud. Around 40 new houses have been built as a result of demining activities.

At the height of the mine presence people felt very isolated and afraid. They estimate that every family has been directly or indirectly affected by mines and listed around thirty people who had died or become disabled as a result of mines. The impact was greater on men and children since local culture limited women's mobility. Women stayed at home and suffered from heightened anxiety instead. Interviewees described women standing in the doorway waiting for children and husbands to come home. The inhabitants had lost many animals as well. Poorer families suffered more consequences as they had to stay and find ways to survive; wealthy people simply moved away and have stayed away. People had to keep finding new routes and new ways to get around the mines, mostly by learning from the costly mistakes of others. Intimate knowledge of the local area and the landscape helped many people survive. Older interviewees described their constant vigilance and lucky escapes, seeing mines thanks to rainfall. In those days, people had to be sent all the way to Kabul for medical attention.

Children who did not grow up during the fighting or grew up abroad do not know the area well and are generally oblivious to the danger of mines and UXOs. One man described a recent incident in a neighbouring village where four small boys had lit a fire under a UXO. Only one survived. Another man described a recent incident where women using a clay oven were injured by an explosion of something in the fuel wood, highlighting the dangers of collecting and using fuel. Unemployed teenagers go hunting since there is nothing else to do and engage in various risk-taking activities including entering minefields. A man described rescuing an eighteen year old boy who stormed off into a minefield after an argument two months ago and lost a leg as a result.

After the fall of the Taliban, people felt that it was the government's responsibility to clear the mines and even though it is demining NGOs which have cleared the mines, people see them as working under the aegis of the government. This is an important consideration in a situation where the government is struggling to gain legitimacy in the eyes of the people. It was clear that people had good relations with the de-miners, with regular exchange of information and some being given small jobs by the demining agency which was moved by their plight – this may inadvertently have led to some favourable perceptions of the government.

The positive effects of demining, however, have been cancelled by the unusable road, the unemployment and lack of assistance to mine victims. There is no NSP CDC here as a result of which a local road project is unlikely in the near future. There is tremendous population pressure as family

numbers are large. Around 300 families have yet to return but are reluctant because of living conditions. Although this was not mentioned by the interviewees some are afraid to come back because of longstanding blood feuds. Livelihoods and the unusable road are critical issues; it is five years since a number of families have returned and youth unemployment is a concern. Interpreters and middlemen in Bagram air base ask for a bribe of 40,000 Afghanis per person to give people access to unskilled work at the base. The district governor has put his own relatives in Bagram base. As a result some people resort to collecting scrap metal in mined areas. Some young men go to Pakistan. This issue makes people feel very alienated from government. The landmine threat is gone but insecurity remains. Nobody dares to drive patients to hospital at night. People cannot leave their houses after 9 p.m. because they will be beaten or detained by the military or killed by criminals. Landmines are now one less concern in a long list of security and development issues.

#### **Case Study 4: Daneshmand**

This case study highlights the large number of stakeholders which can be using or linked to a minefield. In this case it was a number of Kuchi clans, some absent in Pakistan, local communities, local business interests and labourers working for the construction industry and Afghan tourists coming from Kabul during the spring and summer months. Evidently, the leisure needs of growing urban populations have to be taken into consideration. Many areas surrounding large urban centres are used for picnicking and other leisure activities by urban populations. Local tourists, especially young urbanized groups, may not be aware of the land mine threat or its severity.

This site has been cleared of mines planted around a Russian post and other military installations. As encountered in other cases, it was difficult to ask interviewees about the impact of mines as they were already focusing on pressing problems in the present time. The mined area in this village mostly consisted of seasonal grazing land used by the inhabitants and Kuchis who use it on their summer migration route and have split the land between various clans. The mines also blocked access to some well-known shrines which formed the focus of pilgrimage. There are also brick factories in the area now and around five years ago with the construction boom people started quarrying for rocks on the mined mountainsides. The roads were also mined. Before the war tourists would come in large numbers to visit local historic sites. Now there are local tourists from Kabul who come for picnicking and swimming. The area generally sees a great deal of traffic.

There have been many human and animal casualties in this area; some have been children collecting fuel or grazing flocks. In one case a Kuchi lost 14 goats in one incident. There have been many conflicts related to the mined area. The major one, ongoing since 1975, is between the Dawlatzai, Taraki and Hazarbus tribes. There is conflict over ownership and usage, namely agriculture, grazing and residential use. It was also evident from discussions on the NSP that there are rifts within the village and that there are disagreements about prioritisation of community issues. This makes the selection of representative groups to consult with critical.

#### **Case Study 5: Bakhshikhel Village**

The area was mined by the Mujahideen to protect them from Taliban advance. This interview was conducted in a field with elders and after their dispersal with passersby. The interview process, standing in a plain, without the usual niceties and hospitality with which most interactions in Afghanistan are lubricated, made it difficult to get information from the interviewees who were in any case in a hurry to attend a funeral.

The population was mostly of Kuchis who were returning from Pakistan although they denied this and said that they had always been settled in this locale. Their animals were in the East at the time of interview. The settlement was strange in that there were scattered larger houses which were evidently built many years ago and many newly built small houses sprinkled across the plain. There was no graveyard which is very unusual for an established settlement. There were apparently around three hundred families living in the village making the absence of a graveyard even more unusual. A man interviewed from a newly built compound said that he had bought land on which to build but further questioning showed that the transaction was not legal.

It was clear that the people were settling on government land illegally and that the demining was helping them in the process. When this was pointed out, LIATs explained that their main aim was to prevent deaths and that any land conflicts with government were beyond the remit of the MACCA. Interviewees mentioned that children and animals had been killed, that a tractor had been damaged and that most recently a young man had been badly injured. It was only when the consultant specifically enquired about injuries among women and girls that the elders mentioned a young girl injured while collecting fuel. This highlights the possibility that gender biases in reporting female deaths and injuries in some communities may have impacted figures to some extent.

### **Additional Categories of Information**

Based on brief forays beyond economic and landmine death/injury concerns while talking to community members, it is clear that the community studies approach in the Afghan context may highlight a multiplicity of other factors affecting a community when landmines are present. Each case is slightly different because of the unique nature of the community, its history and its relationship with the landscape in which it lives. As Harpviken et al. correctly point out what you choose to measure and how you measure it has implications for what you do not get. The focus of PDIA and information collection is still very much on the quantitative impact e.g. number of square metres cleared, number of direct beneficiaries, number of people attending MRE. This is simplistic and says little about the impact of the project. Changes in people's quality of life as a result of demining or changes in behaviour are more difficult to assess but represent the type of issues which need to be understood to make the best use of scarce resources and to minimise negative impacts. Collecting diverse but relevant categories information may help improve prioritisation, planning and impact assessment of demining activities.

**Time and Space** There were clear indications of the importance of temporal and spatial issues. The amount of time people had spent in mined areas and their intimate relations with a mined landscape led to different concerns in comparison to those who had little or no firsthand experience of the impact of landmines. Spatial issues and perceptions of local landscapes in interviews with those who had not left their villages, as opposed to returnees in a relatively unfamiliar landscape, also led to different approaches and levels of emotion in interpreting the impact of landmines on the life of individuals and communities.

**Taking Risks** The ALIS states that in 2007–2008, people were most at risk of a mine/ERW incident while travelling in unknown areas, tending animals, collecting firewood and scrap metal, and farming. There may be a need to collect more nuanced information on the conditions, attitudes and beliefs which can lead to increased and conscious risk taking behavior. An example is people who have passed through minefields and come out unscathed, feeling encouraged to take the risk again. In Cheshmeye Kharoti, the first village visited during fieldwork, a man was killed recently because he had entered the minefield

for a second time to collect fuel. Since he had emerged the first time unscathed he had become blasé and felt that he knew his way around. For those who had grown up in the refugee or landmine-free context there were some indications of risk taking behaviour because the impact of mines was an unknown. Mothers, for instance, in several returnee villages apparently ask children to go into the minefields to collect fuel. In other instances interviewees described many cases of children tampering with UXOs out of curiosity leading to loss of life and injury.

**Poverty and Livelihoods** It is clear that landmines affect many livelihood activities at national and local level e.g. commercial copper mining at Ainak in Logar where demining has been taking place. There are also local blockages where farmers cannot access their fields and livestock owners cannot graze their animals. There is very little information related to the impact of landmines on the poorer sectors of the community. Little relates to poverty in the forms studied although one suspects that it is a critical factor affecting daily choices about taking risks to secure a livelihood. Although there is a victim prediction model using the LIS dataset<sup>28</sup> it does not include poverty as a 'push factor'. The six variables used in the model since they were found to have a strong influence on the number of recent victims reported in a community, are:

- Victim recency
- Sum of reported socioeconomic blockages
- Communities with over 200 families
- Number of SHAs
- Fuel Unavailability
- Cumulative Area of SHAs Impacting the Community

Qualitative research on the issue may indicate that various combinations of low income, limited employment opportunities and a large number of dependents may in fact lead to risk taking behaviour. Discussions with communities highlighted the fact that the livelihood activities of the poorer sectors of communities, who can least afford the substantial burden of death and disability within the family, are most prone to landmine hazards. These include fuel collection and in some cases use and extraction of rocks and gravel, scrap metal collection and grazing. This must be placed in a context where an estimated 42% of the population (approximately 12 million people) live below the poverty line and do not meet their minimum daily food and non-food requirements and where rural poverty is considerably worse than urban poverty<sup>29</sup>. ERW tampering, particularly among the poor, is a particular risk; and MRE has been increasingly ERW-oriented since 2006. It was hoped that increased MRE for women, who play a key role in educating their children, would result in fewer casualties among boys<sup>30</sup>.

Factors influencing societal burden other than the human cost of suffering due to death, injury, disability, loss of quality of life and psychosocial morbidity are the health service costs and costs to the individual, family and society in expenditure and lost production (WHO 2000). With some 73% of persons with disabilities not having access to education<sup>31</sup> it becomes clear that a high proportion of children being injured by landmines are of particular concern in terms of long term livelihood prospects. Additionally, in a country where the eldest male is generally the main breadwinner and family sizes are

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<sup>28</sup> Moulton et al. 2008

<sup>29</sup> DFID 2008

<sup>30</sup> ALIS 2005

<sup>31</sup> ALIS 2005

large with many small children the impact of mine-related deaths and injuries on dependents in general (women, children and direct dependents) needs consideration. Current information collection does not indicate whether a mine victim was the head of a household or the main earner and how many dependents are directly impacted as the result of his/her death or injury.

**Population Pressure** Key among the impacts of demining is making land available for a growing population. It is estimated that Afghanistan has a population growth rate of 4.1%<sup>32</sup> and a fertility rate of 7.51, both the highest in South Asia<sup>33</sup>, and with no family planning campaigns in sight this figure may not decrease in the near future. Thousands of expanded returnee families have also returned. The expansion of residential areas into wastelands, especially around major urban centres is a powerful indicator of rapid population pressure. Some assessment forms do ask for pre-conflict and current number of families which should provide an approximation of whether a community has grown or has been abandoned. In spite of this, the relentless push of growing numbers of families requiring shelter, especially in urban and peri-urban locales may not be adequately captured in pre- or post-impact assessments except as approximations at community level. Linked to population growth is the construction sector. The mushrooming of construction contractors has led to increasing demands for quarrying and extraction of building materials, from gravel and stone to more expensive marble. This can lead to companies venturing into mined hillsides. It is the labourers who will be most at risk.

**Land Usage** Another area to explore is the dynamic between land ownership, land conflicts, land grabbing and demining. Land conflict can lead to disuse or negative impact on a community after demining cancelling the benefits of clearance efforts. This also pertains to access to and use of irrigation water as well as other cases where access to economic or productive assets is blocked by mines and contested. Wily explains, for example, that access to pasture is fraught with conflict since “historical property management regimes have broken down in many places with militant economic elites rather than the traditional landlord class the likely beneficiaries of rampant land-grabbing”. Demining grazing area without due attention to potential illegal privatization or cultivation could mean that those relying on herds of small livestock, usually landless labourers, lose access to pastures and hence a part of their livelihood portfolio.

It cannot be assumed that in a village of 300 families, for example, the clearance of a mined area will benefit everyone equally. Only about 12% of the total land area of Afghanistan comprises useable farm land, “with irrigated agriculture playing a central role to the rural economy, while 45% of the total land area is pasture supporting a large livestock population. Arable land ownership is highly skewed and a minority of farmers is surplus producing, farming a high proportion of the irrigated land. Consequently, it is likely that in most villages, households that are effectively landless (owning less than 0.20 ha [approximately ½ acre]) are in a majority. The land-poor population is likely to be rising and it is primarily social relations that govern access to and use of land, not market based relations. Frequently insufficient distinction is made by international agencies between lands owned and lands accessed. The social basis of land access gives rise to complex patterns of land use<sup>34</sup>. It may be useful to investigate such issues before reporting on the impact of clearing irrigated land or pastures.

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<sup>32</sup> Without a census it is difficult to have accurate population figures, especially for specific provinces or districts, but agencies such as UNFPA can provide approximate figures and guidance on the use of a pre-census sampling frame.

<sup>33</sup> Source: UNFPA 2005 <http://www.unfpa.org/worldwide/indicator.do?filter=getIndicatorValues>

<sup>34</sup> DFID 2008

Working out the actual number of beneficiaries for clearing a piece of land is more complex than simply writing down the total number of households in a village. If prioritization is tied in part to livelihoods and poverty the questions which need to be asked about land usage and ownership before demining automatically become more complicated. Calculating the cost-benefit ratio of clearing land without reflecting these complexities can be misleading with benefits accruing to a much smaller number of direct and indirect beneficiaries who may well be able to afford private demining services.

**Mapping Mobility** The impact of mines on primary roads is evident and the transport sector provides livelihoods directly and indirectly for a substantial number of people making mine clearance in this sector a priority. The impact of mines on the usage of secondary and tertiary roads as well as major routes where animals are used for transportation or people go on foot may also be of interest. In fact, a related study which has not been undertaken is a mapping of relative mobility between different sexes, age groups and socioeconomic categories in various contexts e.g. urban, peri-urban, rural, nomadic encampment, etc. This will shed light on at risk groups and the distance at which mines and ERWs become a risk to different groups in a community. It can help with prioritising demining tasks and better targeting of MRE. It will determine whether the 500m proximity as an estimate of a serious hazard is valid for all age groups and for both sexes.

## Conclusions

One cannot escape the simple fact that impact can only really be secured once implementers and operators on the ground develop the requisite capacity to actually want it and to know how to use it. The search for simple and unambiguous representations of impact is for the most part a futile exercise and donors and similar stakeholders should take note of this. All actors in HMA, however, should be held accountable for their ability and willingness to base interventions on solid assessments of impact. Based on observations and interviews during this consultancy period impact assessment still appears to be conceptualised as a discrete event with a single function rather than an integral part of the project cycle from beginning to end. Bringing impact assessment into regular use, together with a continuing shift from narrow output measures to a broader understanding of impact, can be seen as an expansion of existing routines, rather than a rupture with established procedures. The mine action sector has a strong tradition of internal planning and monitoring systems and should be able to institutionalize impact assessment. There is no need to set up a large semi-independent impact assessment unit or to develop an “insulated specialization” among a select few but to develop the capacity of existing staff to strengthen ongoing monitoring processes. Further work is needed on enhancing the quality of impact assessment and the understanding of staff about the type of information which would help them improve priority-setting and maximize project quality beyond a focus on technical aspects and for normalizing a more people-centered approach in demining.

No single approach will provide all the answers to the need for impact assessment in the demining sector. There is plenty of room to experiment with the methodological tools and analytical frameworks in existing approaches and drawing on experience as it accumulates. When money is short, it certainly makes sense to collaborate with others collecting information which would be of relevance when assessing the impact of demining. One issue is certainly to ensure transparent reporting which allows relevant stakeholders to participate in well informed discussions on how and where scarce mine action resources could be best utilized.

It is critical that impact assessment activities lead to better planning where the right tasks are addressed first, ensuring that scarce resources for HMA are utilised in the best possible manner. As seen in the

report, instances where communities do not return due to ongoing conflict or areas which are not used immediately after demining constitute erroneous prioritisation, in turn reliant on faulty processes of information collection and analysis both before and after mine clearance. Currently information collection is not leading to adaptability where individual operations are tailored to the conditions of communities hosting them or adapting to changing circumstances in the course of a project. Information is collected to justify what has been done and even that is not performed correctly.

At no time is impact assessment being used to challenge organisational learning and to modify procedures, strategies and policies – except in relation to technical issues. Information collection, analysis and use are still very much top-down processes in Afghanistan’s demining sector. They are focused on satisfying donors and headquarters, that targets have been reached and money has been well-spent, rather than checking that operations are on the right track. This not only relates to a misunderstanding of impact assessment but also to an organisational culture which perpetuates this state of affairs. The challenge is not only to refine and develop impact assessment tools but also to ensure that they are thoroughly integrated in decision-making and project implementation so that the information generated can be used to improve communication both within and between those directly involved in mine action together with all other relevant stakeholders.

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